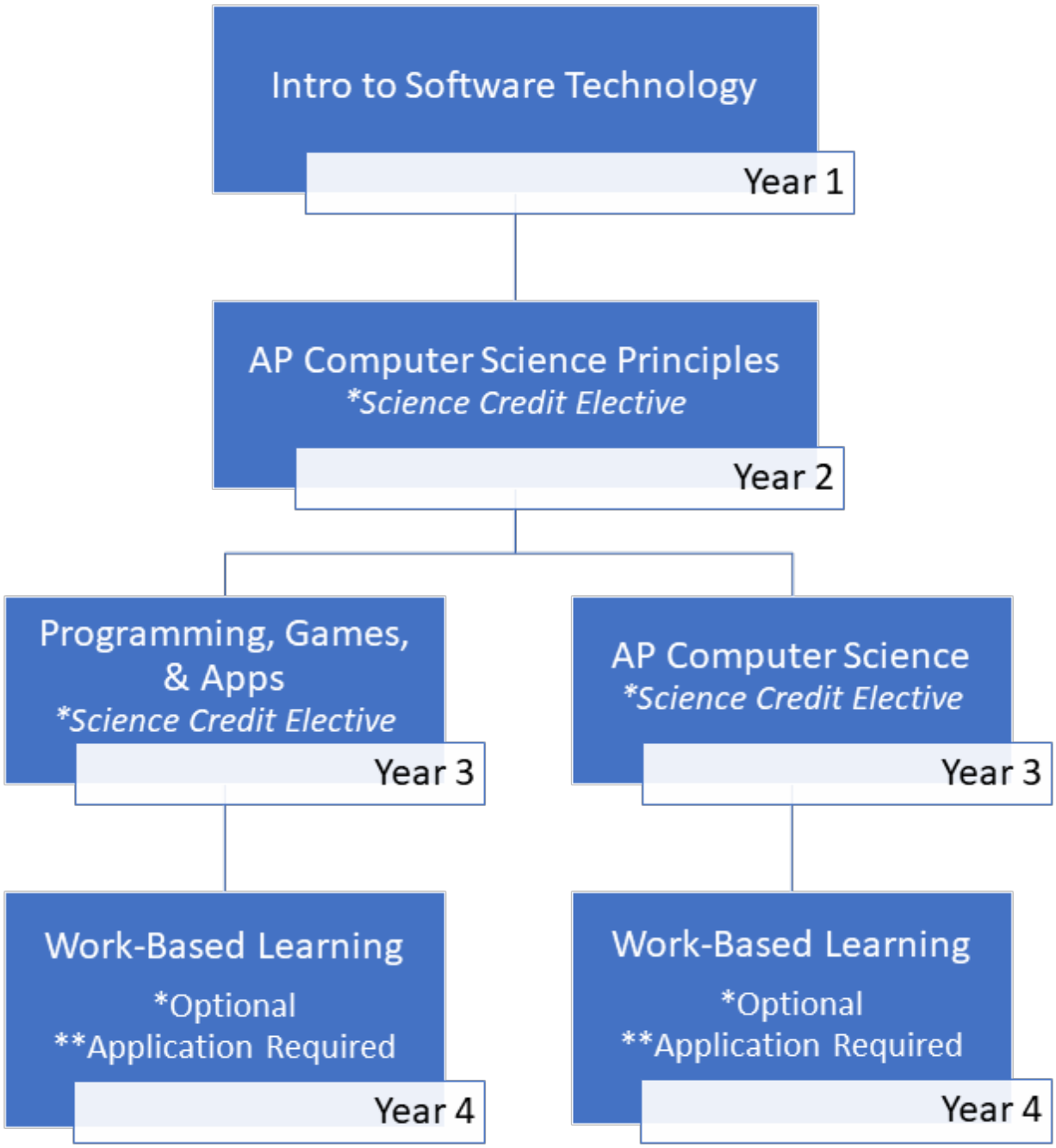
Information Technology Pathways

Students have two paths to choose between and must take the courses in sequence. In some rare cases (teacher approved and communicated with you), they can double up senior year.



Information Technology Pathways Course Descriptions

Course Title: Introduction to Software Technology Course Number (s): 11.44600 fall / 11.446002-spring Term: Y Eligible Grade(s): 9-12	Prerequisite(s): None - This is the prerequisite for all IT courses. This course is designed for high school students to understand, communicate, and adapt to a digital world as it impacts their personal life, society, and the business world. Exposure to foundational knowledge in programming languages, software development, app creation, and user interfacing applications are all taught in a computer lab with hands-on activities and project-focused tasks.
Course Title: AP Computer Science Principles **This is a college level course.* Course Number (s): 11.0190001-fall / 11.0190002-spring Term: Y Eligible Grade(s): 10-12	Prerequisite(s): Introduction to Software Technology & GSE Algebra 1 This course introduces students to the foundational concepts of computer science and challenges them to explore how computing and technology can impact the world. With a unique focus on creative problem-solving and real-world applications, AP Computer Science Principles prepares students for college and career. Whether it is 3-D animation, engineering, music, app development, medicine, visual, robotics, or political analysis, computer science is the engine that powers the technology, productivity, and innovation that drive the world. Computer science experience has become imperative for today's students and the workforce of tomorrow. The AP Program is designed AP Computer Science Principles with the goal of creating leaders in computer science fields and attracting and engaging those who are traditionally underrepresented with essential computing tools and multidisciplinary opportunities.
Course Title: Programming, Games, Apps/Society Game Design Course Number (s): 11.472001 fall / 11.4472002-spring Term: Y Eligible Grade(s): 11-12	Prerequisite(s): Introduction to Software Technology & AP Computer Science Principles Are you ready to design and develop? The course is designed for high school students to strategize, design, and develop games and mobile and desktop applications that can be produced in the real world. Students will learn about life cycles of project development and use models to develop applications. Attention will be placed on how user interfaces affect the usability and effectiveness of a game or an application. Programming constructs will be employed which will allow students' applications to interact with "real world," stimuli. The course exposes students to privacy, legality, and security considerations with regards to the software industry.

	**Course meets fourth science, or fourth mathematics, or world language requirement; Two computer science courses from the same pathway will satisfy two years of sequenced foreign language courses.*
Course Title: AP Computer Science **This is a college level course.* Course Number (s): 11.0160001-fall / 11.0160002-spring Term: Y Eligible Grade(s): 11-12	Prerequisite(s): See FCS placement guidelines. Major themes include critical thinking and problem-solving in computer programming. Students design, implement, and analyze solutions as well as write, run, test, and debug solutions in the Java programming language. Students should have completed Algebra II and Pre-Calculus (preferred). **Course meets fourth science, or fourth mathematics, or world language requirement; Two computer science courses from the same pathway will satisfy two years of sequenced foreign language courses.*
Course Title: Work-Based Learning Course Number (s): Various course numbers Term: Y Eligible Grade(s): 11-12	Prerequisite(s): Application & Teacher Approval Work-Based Learning placements represent the pinnacle of the Career-Related Education experience. To qualify for a WBL placement, a student must be in grades 11, or 12. Students must also have a defined Career Pathway in order to participate in a Work-Based Learning placement. There are several opportunities for students to participate in work-based learning. These opportunities include employability skill development, Cooperative Education, Internship, Youth Apprenticeship, and Great Promise Partnership.